

Remarks

Applicant carefully considered the Office Action mailed on December 2, 2003. Claims 1-72 are pending in the present patent application. Of the pending claims, the Examiner rejected claims 1-72. In response to the Office Action, Applicant amended the specification to address the Examiner's objections. Also, Applicant amended Fig. 8 to correspond with the amendment made to the specification. Applicant requests further examination and reconsideration of the present patent application.

The Examiner made several objections to the specification of the present patent application. Applicant amended the specification to clarify the items raised by the Examiner. Accordingly, Applicant requests that the Examiner reconsider and remove the objections to the specification.

In the Claims Interpretation portion of the Office Action, the Examiner submitted that the term "system" in claim 25 is interpreted as the 35 USC §101 category of an "apparatus". Applicant concurs with this interpretation.

In another part of the Claims Interpretation portion of the Office Action, the Examiner submitted that the term "system" in claim 36 is interpreted as a "process". Applicant does not concur with this interpretation and submits that claim 36 is a "system" type claim and not a "process" claim. The "system" claim recited in claim 36 is different from the one recited in claim 25 in that claim 36 recites a means plus function format. The description provided in the present patent application makes it clear that the means recited in claims 36-48 corresponds to the system shown in Fig. 1 as reference element 100. Since the present patent application discloses a specific structure that corresponds to the claimed means, Applicant submits that the invention recited in claims 36-48 is a "system" claim and not a "process" claim. Accordingly, Applicant requests that the Examiner interpret claim 36 as a "system" and not as a "process".

The Examiner rejected claims 1 and 12 under 35 USC §103(a) as being unpatentable over Pringle (US Patent Number 6,166,814) in view of the reference designated by the Examiner as Computer Images. Applicant respectfully traverses the §103(a) rejection of the present patent application and submits that claims 1 and 12 are patentable over the combination of Pringle in view of Computer Images.

Independent claims 1 and 12 of the present invention each recites the limitation of providing a representation of the product having a visual effect based on the information relating to an additive. The present patent application on page 3, lines 22-26, defines the term "visual effect" includes "speckled, metallic, pearlescence, fluorescence, angular metamerism (e.g., the phenomenon where two colors appear to match under one light source, yet do not match under a different light source), granite, stone, brick, and the like appearances, as well as a translucent capability, and combinations thereof." Applicant acknowledges the Examiner's statement in the Office Action that limitations appearing in the specification but not recited in the claims are not read into the claims, but submits that the definition for "visual effect" is an explicit definition that should control interpretation of the term as it is used in the claims. Furthermore, Applicant believes that the definition for "visual effect" is set out with reasonable clarity, deliberateness and precision so as to give one of ordinary skill in the art notice of the meaning of this term.

Pringle discloses a method and apparatus for characterizing a coating comprising a pigment and metallic flakes. The characterization performed by Pringle involves determining the flake concentration and spectral absorption of the pigments containing the metal flakes. To perform the characterization, Pringle first directs a beam of light towards the coating. Pringle then measures the reflectance of light from the coating at the specular angle and at one or more non-specular angles. Pringle then analyzes the measured light at the specular and non-specular angles as a function of wavelength. Pringle can then

determine K/S of the pigment and the volume fraction of the metal flakes within the coating.

The Examiner notes that Pringle does not disclose the limitation of providing a representation of the product having a visual effect based on the information relating to an additive and as a result has applied the Computer Images reference. The Computer Images reference discloses information on computer graphics and in particular ray tracing.

In making the combination of Pringle and the Computer Images reference, the Examiner submitted that at the time of the invention, it would have been obvious to one of ordinary skill in the art to use the Computer Images reference to modify Pringle. The Examiner believes that one of ordinary skill in the art would have been motivated to make this combination in order to achieve enormous gains in productivity by reducing the number of trial coatings.

If one of ordinary skill in the art were to combine the teachings of Pringle with the Computer Images reference, which Applicant does not believe would be the case, Applicant submits that this combination would not yield the invention as recited in independent claims 1 and 12. The combination at best would yield a method and system that allows one to create images of the characterization performed for the pigments that contain metal flakes. The method and system that would result from the combination of Pringle in view of the Computer Images references would not allow one to design a product having a visual effect caused by an additive. The combination would have no interest in enabling one to design a product having a visual effect caused by an additive. The combination as taught primarily in Pringle already has pigments that contain metal flakes and is not interested in designing a product with an additive such as metal flakes. Instead, the combination is only interested in characterizing the pigment containing metal flakes, i.e., determining the K/S of the pigment and the volume fraction of the metal flakes within the coating as taught by Pringle and possibly generating images of the characterization as taught by the Computer Images

reference. The combination does not contemplate the capability of allowing one to design a product having a visual effect caused by an additive.

In addition to the above distinction, Applicant submits that the combination of Pringle in view of the Computer Images references fails to disclose or suggest the limitation of providing a representation of the product having a visual effect as defined in the present patent application. There are no teachings or motivation that one of ordinary skill in the art could garner from the combination of Pringle and the Computer Images reference that suggests the "visual effect" definition as used in the claimed invention.

In view of the above-noted distinctions, Applicant submits that independent claims 1 and 12 are patentably distinguishable over the combination of Pringle in view of the Computer Images reference. Therefore, Applicant requests that the Examiner reconsider and remove the §103(a) rejection of claims 1 and 12 under the combination of Pringle in view of the Computer Images reference.

The Examiner rejected claims 2-11 under 35 USC §103(a) as being unpatentable over Pringle in view of the Computer Images reference and McKay et al. (US Patent Number 5,593,773) and the reference designated by the Examiner as the Computer Security reference. Applicant respectfully traverses the §103(a) rejection of the present patent application and submits that claims 2-11 are patentable over the combination of Pringle in view of Computer Images, McKay et al. (hereinafter McKay) and Computer Security.

McKay discloses a metal powder pigment that comprises pigment particles of aluminum or aluminum alloy.

The Computer Security reference provides teachings with regard to controlling access to computer files.

Both McKay and the Computer Security reference provides no teachings or suggestions with regard to enabling one to design a product having a visual effect caused by an additive. McKay only discusses a particular metal powder pigment that has metal flakes but does not disclose or suggest the desirability of providing a computer implemented method that allows one design a product with a visual effect. The Computer Security reference adds no teachings to the combination that suggest the desirability of enabling one to design a product with a visual effect through a computer-implemented approach. Thus, Applicant submits that the combination of Pringle in view of Computer Images, McKay and Computer Security fails to disclose or suggest claim 1. Since claims 2-11 depend directly or indirectly from independent claim 1, Applicant submits that these claims are allowable by dependency. Accordingly, Applicant requests that the Examiner reconsider and remove the §103(a) rejection of claims 2-11 under the combination of Pringle in view of Computer Images and McKay and Computer Security.

The Examiner rejected claims 13-24 under 35 USC §103(a) as being unpatentable over Pringle in view of the Computer Images reference and the reference designated by the Examiner as the Communications reference and McKay and the Computer Security reference. Applicant respectfully traverses the §103(a) rejection of the present patent application and submits that claims 13-24 are patentable over the combination of Pringle in view of Computer Images and Communications and McKay and Computer Security.

The Communications reference provides teachings with regard to shuttling data between computers.

The Communications reference provides no teachings or suggestions with regard to enabling one to design a product having a visual effect caused by an additive through the use of computers. Thus, Applicant submits that the combination of Pringle in view of Computer Images and Communications and McKay and Computer Security fails to suggest claim 12. Since claims 13-24

depend directly or indirectly from independent claim 12, Applicant submits that these claims are allowable by dependency. Accordingly, Applicant requests that the Examiner reconsider and remove the §103(a) rejection of claims 13-24 under the combination of Pringle in view of Computer Images and Communications and McKay and Computer Security.

The Examiner rejected claim 25 under 35 USC §103(a) as being unpatentable over Pringle in view of the Computer Images reference and the Communications reference. Although independent claim 25 recites a system, it contains limitations similar to claims 1 and 12 that Applicant believes are patentable over the combination of Pringle in view of the Computer Images reference and the Communications reference. For example, the combination does not disclose or suggest providing a representation of a product having a visual effect based on information relating to an additive. Accordingly, Applicant respectfully traverses the §103(a) rejection of the present patent application and submits that claim 25 is patentable over the combination of Pringle in view of Computer Images and Communications.

The Examiner rejected claims 26-35 under 35 USC §103(a) as being unpatentable over Pringle in view of the Computer Images reference and the Communications reference and McKay and the Computer Security reference. Applicant respectfully traverses the §103(a) rejection of the present patent application and submits that claims 26-35 are patentable over the combination of Pringle in view of Computer Images and Communications and McKay and Computer Security.

Applicant submits that the combination of Pringle in view of Computer Images and Communications and McKay and Computer Security fails to suggest claim 25. Since claims 26-35 depend directly or indirectly from independent claim 25, Applicant submits that these claims are allowable by dependency. Accordingly, Applicant requests that the Examiner reconsider and remove the

§103(a) rejection of claims 26-35 under the combination of Pringle in view of Computer Images and Communications and McKay and Computer Security.

The Examiner rejected claims 36-48 under 35 USC §103(a) as being unpatentable over Pringle in view of the Computer Images reference and the Communications reference and McKay and the Computer Security reference. Applicant respectfully traverses the §103(a) rejection of the present patent application and submits that claims 36-48 are patentable over the combination of Pringle in view of Computer Images and Communications and McKay and Computer Security.

Claims 36-48 recites a system for enabling design of a product having a visual effect caused by an additive. These claims are in means plus function format and recite the structure for performing the functions recited in method claims 12-24. The rationale use to distinguish claims 12-24 from the combination of Pringle in view of Computer Images and Communications and McKay and Computer Security is applicable to claims 36-48. Accordingly, Applicant submits that claims 36-48 are patentably distinguishable over the combination of Pringle in view of Computer Images and Communications, McKay and Computer Security. Therefore, Applicant requests that the Examiner reconsider and remove the §103(a) rejection of claims 36-48.

The Examiner rejected claims 49-59 under 35 USC §103(a) as being unpatentable over Pringle in view of the Computer Images reference and McKay and the Computer Security reference. Applicant respectfully traverses the §103(a) rejection of the present patent application and submits that claims 49-59 are patentable over the combination of Pringle in view of Computer Images and McKay and Computer Security.

Claims 49-59 recites at least one program storage device readable by a machine that embodies instructions executable by the machine to perform the method for enabling design of a product having a visual effect caused by an

additive. The limitations are similar to the ones recited in method claims 1-11. The rationale use to distinguish claims 1-11 from the combination of Pringle in view of Computer Images and McKay and Computer Security is applicable to claims 49-59. In addition to these distinctions, Applicant submits that the combination of Pringle in view of Computer Images and McKay and Computer Security does not disclose or suggest providing a storage device readable by machine that embodies instructions executable by the machine to enabling design of a product having a visual effect caused by an additive. Accordingly, Applicant submits that claims 49-59 are patentably distinguishable over the combination of Pringle in view of Computer Images and McKay and Computer Security and requests that the Examiner reconsider and remove the §103(a) rejection of these claims.

The Examiner rejected claims 60-72 under 35 USC §103(a) as being unpatentable over Pringle in view of the Computer Images reference and the Communications reference and McKay and the Computer Security reference. Applicant respectfully traverses the §103(a) rejection of the present patent application and submits that claims 60-72 are patentable over the combination of Pringle in view of Computer Images and Communications and McKay and Computer Security.

Claims 60-72 recites an article of manufacture that comprises at least one computer usable medium having computer readable program code means embodied for enabling design of a product having a visual effect caused by an additive. The limitations are similar to the ones recited in method claims 12-24. The rationale use to distinguish claims 12-24 from the combination of Pringle in view of Computer Images and Communications and McKay and Computer Security is applicable to claims 60-72. In addition to these distinctions, Applicant submits that the combination of Pringle in view of Computer Images and Communications and McKay and Computer Security does not disclose or suggest providing a computer usable medium having computer readable

program code means that enable the design of a product having a visual effect caused by an additive. Accordingly, Applicant submits that claims 60-72 are patentably distinguishable over the combination of Pringle in view of Computer Images and Communications and McKay and Computer Security and requests that the Examiner reconsider and remove the §103(a) rejection of these claims.

In view of the foregoing remarks and amendments, Applicant requests that the Examiner reconsider this application and allow claims 1-72.

If the Examiner has any questions regarding the present patent application, the Examiner can call Applicant's attorney, David Goldman, at telephone number (518)-387-5927 or (518)-387-5903.

Respectfully submitted,

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